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# Why Do Urban Biases Persist? <sup>♣</sup>

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## Abstract

Pro-agricultural policies have had a large and continuing impact on pro-poor growth. Yet over the last three decades, policy support for agriculture has declined for the majority of underdeveloped countries. This paper studies the causes and manifestations of this ‘urban’ bias both in domestic pricing policies and government expenditures, and in international trade and foreign aid regimes. It provides a synthesis of existing research updated with novel analysis and explains the effective neglect of pro-agricultural policies in the context of the currently dominant development paradigms. The authors conclude that urban biases remain highly topical, and a persistent and paramount obstacle to sustained growth and poverty reduction.

*Keywords: agriculture, poverty reduction, public sector, urban bias, development paradigms*

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## Abstract

Pro-agricultural policies have had a large and continuing impact on pro-poor growth. Yet over the last three decades, policy support for agriculture has declined for the majority of underdeveloped countries. This paper studies the causes and manifestations of this ‘urban’ bias both in domestic pricing policies and government expenditures, and in international trade and foreign aid regimes. It provides a synthesis of existing research updated with novel analysis and explains the effective neglect of pro-agricultural policies in the context of the currently dominant development paradigms. The authors conclude that urban biases remain highly topical, and a persistent and paramount obstacle to sustained growth and poverty reduction.

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## I. Introduction

A large literature shows that investments made by developing countries in agriculture - and in rural infrastructure, health and education - are both pro-growth and pro-poor. Yet over the last three decades there has been an inefficient and systemic bias in the allocation of developmental resources, with the bias going against agriculture and the rural economy. The bias is inefficient because no currently advanced country of some size became advanced without the agriculture sector first achieving substantial productivity gains in the early stages of development. The bias is systemic because it has fundamental institutional causes grounded in the political economy of developing economies and in the development profession. In this paper we argue that, because the bias has systemic, institutional causes (both domestic and international), it may rightly be labelled the contemporary manifestation of ‘urban bias’ in development policy.<sup>1</sup> We document its existence, explore its causes, and urge its correction.

Economists have certainly long been aware of these urban biases. Biases against rural development were part of the ‘backwash’ effects identified by Myrdal as early as 1958. In 1971, World Bank President Robert McNamara made special note of the insufficient resource allocation to this sector on several occasions. Michael Lipton, who popularised the term ‘urban bias’ in 1977, elevated the problem to a position of primary

importance, while several other seminal works – such as Little, Scitovsky and Scott (1970), Krueger, Valdes, and Schiff (1991) and Binswanger and Deininger (1997) – persuasively documented many of the specific dimensions of urban biases. More recent works note that the bias against agriculture still persists in contemporary development policy (see Byerlee et al., 2005; Rola-Rubzen, Hardaker and Dillon 2001; and the World Bank’s *Rural Poverty Report*, 2003), but no recent work comprehensively attempts to measure and explain all the various forms of urban biases, a void which this paper seeks to fill. Moreover, on the basis of these conclusions, we draw the much stronger conclusion (as per Lipton 1977) that urban biases are still the largest institutional impediment to growth and poverty reduction in the world’s poorest countries, a fact which is under-recognized in both development theory and practice.

A summary of arguments and evidence is provided in Table 1 below. We justify our concern with agricultural development in the least developed countries (LDCs) by observing that a large and ever-increasing body of historical experience and rigorous empirical evidence strongly indicate that agricultural development is a necessary condition for broader ‘takeoff’ into sustained development. Moreover, because of the pervasive and highly distortionary market failures in underdeveloped agricultural sectors, government involvement in this sector has been shown to be instrumental in the growth paths of the best performing developing countries, especially the Asian Miracles. This naturally leads to the hypothesis that underdevelopment in this sector is still the primary obstacle to broader growth and poverty reduction in many developing countries (especially in Africa), and that agricultural interventions in this sector have either been inefficient, insufficient, or both.

Like other authors, we are able to document the dimensions of governments’ neglect of LDC agriculture, but we do so in as comprehensive a fashion as possible. Our results are disturbing to say the least.

On the domestic front we discuss theoretical explanations of urban biases, foremost among them being the weak political voice of the rural poor and the aforementioned market failures in this sector. These inherent features may also have been exacerbated by the colonial inheritances of many LDCs. Empirically, domestic urban biases manifest themselves in two semi-distinct forms: intra-rural inequality, which is typically a Latin American phenomenon; and general rural-urban inequality, which is especially an African phenomenon, although it is also prevalent in other very sectorally unbalanced economies (e.g. Nepal). The common denominator in both these scenarios,

however, is a bias against smallholder agriculture, the sector in which the majority of the world's poor still toil for a living. Unfortunately, these private sector imbalances have typically been compounded by urban-biased public policies. Agricultural expenditure per capita has been especially low in sub-Saharan Africa and other poor performing LDCs, while price discrimination against agriculture has been high, but mostly decreasing in recent years.

On the international front, the situation of agriculture in OECD countries is an entirely converse state of affairs. OECD agriculture still receives very substantial trade protection as well as high and increasing subsidisation, primarily because agricultural populations in advanced and mostly federalist democracies actually have disproportionately strong political power. In effect, then, a 'rural bias' exists in OECD governments, although it manifests itself as a bias against the rural sector in developing countries.

In terms of foreign aid, there are good grounds to believe that the previously observed decline in aid to agriculture is associated both with the increasing scepticism of government intervention in general (especially in the Washington Consensus institutions) and with general pessimism regarding rural and Green Revolution projects among the broader development community. We also show that dramatically declining flows of aid to agriculture (and other economic sectors) are largely explained by equally dramatic increases in aid flows to social sectors. This fundamental shift in aid allocation has taken place in the space of just 15 years, and has mostly gone unnoticed by the profession.

Since donor countries also provide important research on developing countries, we were also interested in testing the hypothesis that the declining emphasis on agricultural aid projects has been matched by a declining interest in agricultural research in economics. Interestingly, we find that the decline in total aid flows to agriculture – including World Bank aid flows – closely accords to a substantial decline in World Bank research on agriculture, but that this decline is not observed in general development economics.

We conclude the paper by briefly discussing the role of agriculture in the current era of policy debate. The Washington Consensus has been heavily criticised along a number of dimensions, including its neglect of both agriculture and of the institutional realities of LDCs, such as urban biases. A result is that two major schools of thought are now vying for pre-eminence. In the first, the original Washington Consensus has been augmented with a renewed emphasis on poverty reduction as a desired target– manifest

in the Millennium Development Goals (MDGs) - without really altering the old neoclassical policy instruments, or learning from the central features of the East Asian experience. The second school harkens back to paradigms which advocate significant government interventions in major production sectors. Although in principle we agree with this second approach, we nevertheless remain concerned that this paradigm is also capable of repeating the mistakes of the past by over-emphasising interventions in industry at the expense of agriculture. In light of the persistence of urban biases on both domestic and international fronts, and arguably even in current development thinking, we believe that there are sufficient grounds to argue that the urban bias critique is as relevant as ever.

## **II. Why urban bias matters: The role of agriculture in development**

Any policy which significantly discriminates against LDC agriculture is likely to significantly hinder economic growth and poverty reduction, since substantial government involvement in agriculture seems to be a necessary precursor to both agricultural development and overall economic progress. A truly substantial body of work from both economic history and development economics strongly supports these claims.

In terms of economic history, it has been well established that the advanced Western countries had comparatively high levels of agricultural productivity before and during the Industrial Revolution. Indeed, some authors claim that a Green Revolution occurred before or contemporaneously to the Industrial Revolution (Rostow, 1960; Crafts, 1985; Allen, 1994; Overton, 1996),<sup>2</sup> while Adelman and Morris (1988) also present evidence that it was the strong agricultural performers in the 19<sup>th</sup> Century that subsequently developed most rapidly.<sup>3</sup> Earlier on, Adelman and Morris (1967), in their cross-country study of early growth in contemporary developing economies, found that agricultural transformation was important both in the manner predicted by Lewis and in terms of breaking down the traditional social elements of the agricultural sector.<sup>4</sup> But at later stages of development the formal agricultural sector continues to serve important functions in sustaining industrial development, chiefly in the manner envisioned by Lewis.

In the Lewis-type framework (see Johnston and Mellor 1961) agricultural facilitates economy-wide growth by providing cheap food, raw materials and labor, an important source of savings, greater demand for non-agricultural goods, and a relatively

labour intensive source of employment, thereby economizing on scarce capital and import consumption. In addition to these factors we would also argue that agricultural underdevelopment – especially relative to non-agricultural development – is also more likely to cause political instability (an argument implicit in Harris and Todaro (1970) and espoused in more general inequality terms in Alesina and Perrotti (1996)). We note, for example, high levels of ‘rural-urban’ inequality in countries with regional conflicts, some of which are very serious and ongoing (for example, Nepal, The Philippines, Mexico, Bolivia, Brazil).

In recent years, various authors have suggested that changing international conditions – which broadly fall under the umbrella of globalization – may have reduced the importance of agriculture. Food imports, for example, could allow a country to specialize in industrial activities, services or resource extraction. But as the discussion in Diao et al. (2006) makes clear, the open economy is not a panacea in which agriculture loses all relevance. In countries with large rural populations (especially Africa) neither industrial activities nor mineral extraction are as labour intensive as agriculture. Most African countries have very little immediate comparative advantage in manufacturing, and past attempts to prematurely develop manufacturing sectors in Africa have consequently failed. Mineral extraction has generally not led to sustained growth and certainly not to poverty alleviation, and such activities often indirectly hurt other sectors via Dutch Disease effects. So in most countries at low levels of development, agriculture is still the sector which has the greatest potential to reduce poverty and indirectly support structural transformation.

The historical evidence of these linkages is therefore still highly relevant even today. This evidence suggests that agricultural development was not only essential in the development paths of the most successful developing countries, but that public involvement in this sector was an integral source of agricultural ‘takeoff’. Work by Ranis and Fei (1961), Adelman and Morris (1967), Little et al. (1970), Krueger et al. (1991), The World Bank (1993) and Stern (1989) all argued that successful industrializers (including the East Asian ‘miracles’) had only modest discrimination against the agricultural sector and high levels of productivity growth. Moreover, East Asian countries were exceptionally good at investing public resources in all the people – rural and urban, agricultural and non-agricultural – while several of these countries (South Korea and Taiwan, especially) engaged in very substantial land reform, which arguably mitigated several of the most critical market failures in this sector.<sup>5</sup> Similarly, other East

Asian countries were fortunate to have relatively high land equality to begin with, in stark contrast to less successful Latin American countries (see below). Moreover, this story does not simply rest on the experiences of just a handful of East Asian miracles. Other countries with surprisingly fast growth rates (see Rodrik (2004) for some discussion) – such as Tunisia, Egypt and Syria – also implemented pro-agricultural development strategies.

More formal cross-country work also illustrates the contemporary importance of these links. In a very extensive review of this literature we came to three strong conclusions concerning this evidence.

First, *all* cross-country studies which attempt to gauge the sectoral sources of aggregate growth find that agricultural gains have the strongest linkages to growth in other sectors and aggregate growth (Stern 1996; Bravo-Ortega and Lederman 2005; Timmer 2002; Gollin et al. 2002; Tiffin and Irz 2006; Xiao et al. 2006). These studies often use different data and different techniques, but still come to the same qualitative conclusion: agriculture is the engine of growth at lower levels of development.<sup>6</sup> Our second conclusion from reviewing this literature was that *all* case studies which perform analogous tests at the country level reach same outcome (Timmer 2003; Bell et al. 1982; Haggblade et al. 1989; Delgado et al. 1998; and see reviews in Byerlee et al. 2005, and Thirtle et al. 2003). Our third finding was that innumerable poverty studies invariably conclude that agricultural productivity is a major source of poverty reduction, if not *the* major source (Datt and Ravallion 1996; Warr 2002; Gallup, Radelet and Warner 1997; Ravallion and Chen, 2004; Thirtle et al. 2003; Bourguignon and Morrison 1998; Timmer 1997; De Janvry and Saddoulet 1996; Timmer 2002; Bravo-Ortega and Lederman 2005; Byerlee et al. 2005).

Whilst arguments in favour more industrially oriented development strategies should not be dismissed outright, the strong conclusion from development history to date is that agricultural productivity gains have been fundamental to achieving growth and poverty alleviation in the most successful countries. The key question, then, is to what extent the poorest performing countries have been constrained by inherent, unfixable failures in the agricultural sector, as opposed to urban biases of one form or another. Whilst drawing this line is a difficult task, we argue in the next section that most problems in the agricultural sector are fixable, and that political biases against agriculture chiefly explain this sector's poor performance in so many LDCs.



### III. Domestic urban biases

#### *Urban biases in the private sector*

In terms of the private sector, we have already note that agricultural development has a wide variety of forward linkages to non-agricultural sectors, which are essentially external benefits which private agents do not commensurately reap. These benefits instead accrue to non-agricultural investors who gain from low food prices and an ample supply of cheap rural labor (among other things). Unfortunately both of these outcomes can be obtained – in the short run, at least - from urban-biased policies. But in addition to these externalities, the agricultural sector also suffers from severe and often idiosyncratic market failures such as information asymmetry, high transaction costs, labor market distortions, extreme volatility and covariance of incomes (resulting in missing agricultural insurance markets), and the indivisibility of many rural investments (Binswanger and Deininger 1997). These failures – which are disproportionately severe relative to urban sectors – therefore explain why LDC agriculture will attract very few resources in a low income laissez-faire economy.<sup>7</sup>

This largely endogenous state of affairs can be compounded by institutional factors, however, which explain the different forms of urban biases found across countries. Early on in the discussion of the interactions between agriculture and other sectors, Lewis (1954) noted that in some cases the modern sector is entirely urban and non-agricultural, while in other cases it may include a relatively advanced agriculture sector consisting of large plantations and *haciendas*, surrounded by a traditional and largely subsistence smallholder sector (and hence, significant dualism or inequality within the rural sector). Moreover, both Lewis and Myrdal (1958) identified this form of dualism as a predominantly colonial inheritance, with the modern sector typically dominated by expatriate groups, or by racial and/or economic classes favored by the colonial regime (see also Lipton 1989, p. 140). More recently, Acemoglu, Johnson and Robinson (2001) argue that the geographical factors played a significant role in determining the enclave nature of the modern economy in post-colonial societies. Whilst the colonial inheritance is now half a century old in most LDCs, this inheritance is still relevant precisely because of the persistence of institutionalized inequality, especially land inequality (Carter 2000; Frankema 2005). In Figure 1 we empirically demonstrate the distinction between general rural-urban inequality and intra-rural inequality. The former

is proxied by the inequality between agricultural and nonagricultural average per capita incomes (circa 2001), while intra-rural inequality is proxied by inequality of land ownership (circa 1985, although land inequality does not usually change quickly over time). The sources of these two variables are Headey (2006) and Frankema (2005).

[Insert Table 1 about here]

The data demonstrate that intra-rural inequality is chiefly predominant in Latin America, as represented by its high levels of land inequality and the domination of large *haciendas* and plantations in total agricultural output. In these economies the ‘urban’ bias only places traditional smallholders at a significant disadvantage relative to other sectors. In contrast, in Sub-Saharan Africa the vast majority of agricultural inhabitants are smallholders anyway (in this sense the urban bias is the same), so land inequality is not typically high. However, agricultural incomes are far below nonagricultural incomes.<sup>8</sup>

These two regions stand in some contrast to other regions in the sample, most of which were much better performing. In the fastest growing region, East Asia, we see that land and intersector income inequalities are both low – although in some cases this is a direct result of substantial public sector activities (see below). However, we do note that Thailand is a regional exception, and industrializing China has recently become one. A similar situation holds in South Asia, although here too Nepal is a major exception, with intersectoral income inequality on a par with sub-Saharan African conditions. Finally, the Middle East and North Africa (MENA) region, which includes seven relatively successful economies not dependent on oil revenues, clearly bears some similarities to South America inasmuch as land is typically fairly abundant. But land inequality in this region, although high, is still not as severe as poor performing South America.

Perhaps the most important message here is that the institutional settings in which markets operate has a strong and persistent influence on the severity and the form of private sector urban biases. However, these adverse institutions are also likely to distort public policies, which would otherwise be capable of redressing private sector biases. We should also not neglect the importance of geography in explaining poor agricultural performance in LDCs, especially in Africa. However, the adverse effects of geography are difficult to disentangle from those of urban biases, which have also been especially prevalent in most of Africa. Moreover, there are good reasons to think that the connections between geographical adversity and urban biases are causal rather than

coincidental (Gallup, Sachs and Mellinger 1999). In particular, it seems reasonable that biophysical adversities can easily overburden the technical capacities of LDC governments. But such adversities also create a mass of rural poor with weak political voices.

[insert Figure 1 about here]

#### *Urban biases in the public sector*

Poor rural populations are indeed the most disenfranchised of political groups. Rural populations in much of the developing world are physically isolated from the centers of power, which are in any case urban by their very nature. Moreover, rural populations are isolated from each other, especially in South America and much of sub-Saharan Africa, so the costs and difficulties associated with forming rural pressure groups are typically prohibitive (Binswanger and Deininger 1997).

Some special note should be made of the role of political systems in determining urban biases. The evidence appears to indicate that rural pressure groups can be influential even in the absence of a democracy, provided that they constitute a credible threat to the powers that be. Most East Asian countries were not democratic during their acceleration phases, but the greater population densities of these countries (especially relative to South America and most of Africa) meant that government elites have been conscious of the genuine threat of effective rural protests and uprising. In fact, these economies have easily had the most pro-agricultural policies of any region. So in some sense these countries did have ‘economic democracy’ if not political democracy. Nevertheless, better democracies generally do mitigate urban biases, as one would expect. Early on, Lipton (1977; 1988, pp. 7-10 for a review) argued that the greater strength of democratic institutions in much of South Asia (especially India and Sri Lanka) played an important part in constraining (but not eliminating) urban biases in this region. Other important factors influencing the rural investment decisions of policymakers include the initial productivity of agriculture, and the extent of land inequality.<sup>9</sup> We provide empirical support of all these claims in Appendix Table 2.

Finally, some mention should also be made of the influence of alternative development paradigms on LDC policymakers. In the 1950s and 1960s, many development theorists favored - or were interpreted as favoring - industrialization strategies (Nurkse 1953; Rosenstein-Rodan 1944; Hirschman 1958; Lewis 1954).

However, such strategies varied in terms of their success according to reasonably clear-cut differences in the degree to which they were outward-oriented, but also in terms of how they treated the rural sector. As we reaffirm below, East Asian governments were *actively* pro-agricultural, and not just non-discriminatory, thereby strengthening all the upstream linkages between agriculture and the rest of the economy (poverty reduction, political stability, labor intensity), and not just the extractive linkages (cheap labor and food).<sup>10</sup>

Turning now to more specific forms of biases in public policy, we separately discuss the evidence on price and expenditure discrimination. Although there are significant literatures on both these policies, we attempt to update existing knowledge.

With respect to agricultural pricing policy, Krueger et al. (1991) provided the most comprehensive measurement and description of the effective taxation of agriculture via pricing policies, albeit for just 18 countries for 1960 to 1984. Although the Krueger et al. study is currently being updated, the full results of this study are not yet available.<sup>11</sup> In lieu of these, we chose to use the next best alternative measure of price discrimination against agriculture, Rao's (1993) measure of the ratio of the purchasing power parity (PPP) exchange rate for agricultural goods relative to the actual exchange rate, measured at five year intervals from 1970 to 1995. We interpret this ratio as a measure of relative agricultural prices, although this ratio could be high because of either price support to agriculture (a larger numerator) or because of an undervalued exchange rate. Inasmuch as agricultural goods are usually highly tradable, either of these scenarios would favor agricultural producers. We also note that if foreign trade were free, all goods tradable, and endowments were accurately netted out of relative price levels, this index would be equal to 100 in the long run. But because these assumptions do not perfectly hold, we stress movements in the trend more than the actual levels themselves.

Figure 2 shows that relative agricultural prices were indeed quite low, thereby explaining the pivotal focus of the Washington Consensus on price distortions during this period. In the 1980s relative agricultural prices increased substantially, reaching their zenith in 1985. Surprisingly, despite greater movements towards more 'realistic' exchange rates in the 1990s (typically involving a depreciation), relative agricultural price declined again in the 1990s.<sup>12</sup> A final question of interest is whether or not this index is associated with good agricultural performance. For the most part, it is. Highly successful agricultural economies in South Korea, Malaysia, Tunisia, Egypt, and Indonesia have indeed recorded very high agricultural prices, while much of Africa and Latin America

records relative prices well below 100. However, much of the recent work on agricultural performance places even greater emphasis on discrimination in public expenditure.<sup>13</sup>

[insert Figure 2 about here]

Data on private investment in LDC agriculture is virtually non-existent and even central government public expenditure data is significantly incomplete. Nevertheless a wide range of studies tell essentially the same story. Headey and Bezemer (2006) calculate government expenditures on agriculture per head of the agricultural population for as many LDCs as the data permit.<sup>14</sup> They classify countries according to three dimensions: initial agricultural expenditures (the earliest year being 1972), subsequent changes in agricultural expenditure, and per capita growth rates in aggregate GDP. They find that countries which engaged in pro-agricultural expenditures almost invariably had much faster aggregate growth rates than those that did not. Fan and Rao (2004) study the trends and the impact of government expenditures in developing countries. They find that: i. agricultural expenditure declined in all regions except Latin America, chiefly as a direct result of structural adjustment programs; ii. agricultural expenditure had a large and positive impact on growth in Africa and Asia; and iii. Agricultural R&D had a larger impact than other agricultural expenditures. And finally, two very detailed reviews focusing on both price reforms and expenditure reforms (Ahmed and Lipton 1997; Kherallah et al. 2002) come to the conclusion that insufficient public expenditure on agriculture severely constrained the impact of price reforms.

The basic conclusion to be drawn from recent development experience is that *both* price and expenditure biases constrain agricultural development. Unfortunately, emphasis on price biases has largely come at the expense of arguably the larger expenditure bias against agriculture, an issue we revisit in Section V.

#### **IV. International urban biases**

Whilst urban biases are typically talked about in the domestic governance context, a range of forces in the international economic system also effectively discriminate against the underdeveloped agricultural sector.

##### *International trade biases against LDC agriculture*

A widely discussed international dimension of the urban bias against LDC agriculture – the international trade bias – is ironically the result of a bias in favour of agriculture in OECD countries. In these countries the development of largely spatially representative democratic institutions means that, if anything, the agricultural sector is over-represented in political decision-making processes. Thus, agricultural sectors in many OECD countries have been able to extract high levels of effective protection for their sector, to the obvious detriment of LDC agricultural exports. Effective protection again takes two forms: via tariffs and non-tariff barriers to trade (which may be substantial in agriculture); and via government subsidization.

Some of the statistics and findings on the impact of the international trade regime on LDC agriculture are indeed quite disturbing.<sup>15</sup> Whilst OECD tariffs on non-agricultural goods have generally declined considerably since the 1950s – tariffs on industrial goods were brought down to just 4.7% on average during the Tokyo round (1973-79) – tariffs on agricultural goods have remained very high, with special concessions to developing countries typically excluding agricultural imports. UNCTAD (1999) estimates that trade barriers alone cost the developing countries \$700 billion in lost export earnings (although ABARE (2001) estimates that that these gains would be accrued rather unevenly). Moreover, LDCs face higher tariffs on processed goods than on commodities,<sup>16</sup> which perpetuates their lack of trade and production diversification and erodes their incentives to develop technological infrastructure. Thus, conventional trade biases within OECD countries are still a formidable source of underdevelopment in LDC agriculture.

A more contemporary trade bias occurs via OECD subsidies to agriculture, which have actually doubled since the Uruguay round in the early 1990s. Our data for the year 2000 suggests that central government expenditure per agricultural inhabitant in Africa and South Asia is typically much less than US\$ 10 per capita, while most other LDCs spend less than US\$ 100 dollars per capita per year. In contrast, most

Scandinavian countries spend anywhere from US\$ 3000 per capita (Denmark) to almost \$10,000 per capita (Norway), while the US – after the introduction of the farm subsidy bill - now spends US\$ 6,400 per year. In other words, we are often talking about per capita expenditure differences of 320,000 percent. Of course, one can make some quantitatively significant caveats regarding the differing marginal effects of these expenditures, but under any plausible set of assumptions (and even most implausible assumptions) such phenomenal differences imply that developing country farmers are grossly disadvantaged relative to their potential competitors in OECD countries. Thus the international trade regime – the structure of which has almost entirely been dictated by OECD countries - has in recent years actually increased its already substantial bias against LDC agriculture.

#### *Trends in foreign aid to agriculture*

Another important aspect of the international economic system which potentially contains a bias against agriculture is the international allocation of foreign aid resources. Aid is important not only because it represents a major resource flow to the poorest countries, but also because it may be reflective of the development policy paradigms of donor agencies and elite practitioners in the field. Moreover, since these paradigms have changed over time - including the extent to which they emphasize public sector involvement in agriculture - we might also expect that the neoclassical revolution in economic theory and policymaking may be expected to be associated with an observed decline in aid flows allocated to ‘economic’ sectors, including agriculture. However, in a broader sense foreign aid to agriculture also includes research and development, including economic research. We therefore also consider the hypothesis that the neoclassical revolution is associated with reduced economic research in agriculture, especially within the traditionally more neoclassically oriented institutions such as the World Bank and IMF.

There could also be other reasons why aid donors would allocate fewer resources to agriculture. Lipton (1987), for example, argues that there is a widespread perception that rural development projects – including Green Revolution (GR) projects - have been much less successful than other uses of aid. If this is the case, then the available evidence suggests that: i. there is nothing inherently flawed about rural projects, which generally show similar rates of return to other projects among all LDCs (Lipton 1987), with very high rates of return in research and extension projects (Role et al. 2001); but ii. rural

projects have often experienced lower returns because of greater susceptibility to exogenous shocks (especially weather shocks, political instability)<sup>17</sup>, macroeconomic policy discrimination (The World Bank 1991, p. 82), and insufficient public investment in complementary inputs (Murgai 2001; Mosley 2002; Dorward and colleagues 2003, 2004, 2006; Wiggins, 2000; DFID, 2005a; Zoomers, 2006).

Given the abundance of evidence which shows just productive such investment can be *in the right circumstances*, the widely observed decline in aid to the agricultural sector would be all the more unfortunate. But just how sharp and pervasive has this decline really been? Previous research has already demonstrated that aid to agriculture – whether it be from The World Bank, multilateral or bilateral donors, or all donors - has been small in general, and has declined in both relative and absolute terms (World Food Summit (WFS), 1996); World Bank (2003); DFID, (2005b)), especially in the 1990s. DFID (2005b), for example, reports OECD DAC figures which suggest that the real global volume of assistance to agriculture decreased by nearly two-thirds from US\$6.2 billion to US\$2.3 billion between 1980 and 2002, while agriculture's share of total aid has fallen from a peak of 17% in 1982 to 3.7% in 2002.<sup>18</sup> In Sub-Saharan Africa, where the agricultural sector is still very large indeed, the reduction was less dramatic but still very large, with agricultural aid levels halving between 1980 and 2002 (from 1,450 to 713 million dollars in constant 2002 terms). In earlier drafts of this paper, we also measured agriculture aid per agricultural inhabitant, and noted that it declined from a peak of around US \$20 per capita in the mid 1980s to just \$7 per capita in 2001. Moreover, we found that if one excludes China and India, then population-weighted rural output per capita in LDCs has also declined over this period by some 26%, so that decreasing agricultural aid and rural output have declined more or less contemporaneously.<sup>19</sup>

These findings suggest that real foreign assistance to agriculture has declined, but also that direct agricultural development strategies have received much less priority in the 1990 than in the early 1980s. Of course, there are important caveats to these interpretations. Foremost amongst these is the well known fact that aid practices have changed considerably over the last thirty years.<sup>20</sup> In addition to increasing amounts aid being delivered as program or multi-sector aid, aid could still be directed at rural people, but not directly at the agricultural sector. In Figure 3 we try to account for the decline in agricultural aid by looking at changes in the shares of aid to agriculture, industry, social sectors and multisector & program aid (see figure notes for definitions). Our intuition that aid to production sectors is expected to have declined is strongly confirmed by the



data: aid to agriculture has declined dramatically, but only by the same proportion as aid to industry. Moreover, even multisector and program assistance has declined marginally in recent years. The strongest explanation of the shift of aid out of economic sectors is therefore the even more dramatic increase in aid to social sectors. Nearly all the components of social sector assistance have increased substantially, but the fast growing sectors are governance, health, ‘other social sectors’ and the environment (aid to education rose only modestly).

So an important explanation of the real absolute decline in agricultural aid is that aid has been shifted out of economic sector projects and into social sector projects. Moreover, this remarkably large transformation in aid delivery took place in the space of just 15 years (1985 to 2000). A pertinent question, obviously, is whether this restructuring has been beneficial for developing countries. A comprehensive answer to this question is beyond the scope of our research, and a wide variety of factors need to be taken into consideration (the spread of AIDS/HIV clearly warranted greater health care expenditure, for example). But irrespective of how one feels about these types of projects, the fact remains that social sectors have seemingly received greater funding at the relative and absolute expense of the agricultural sector.

[insert Figure 3 about here]

We now turn to the question of whether this decline in financial resources to agriculture is paralleled by a decline in agricultural research. We test this possibility by conducting systematic word searches of World Bank working papers, World Bank *World Development Reports*, and finally, for four major general academic journals on development. We begin with our search of World Bank Working Papers using the World Bank’s *e-Library*, which covers the period 1994 to 2005.<sup>21</sup> We derived two measures of the importance of agriculture: the proportion of papers with words containing the letters “agricultur” in the paper’s abstract; and the proportion of papers classified by the World Bank as “agriculture and rural development” papers. Figure 4 presents our results. We do indeed see a quite dramatic trend of decreasing emphasis on agriculture as a subject of World Bank research. In the period 1994-98, around 15% of World Bank working papers dealt with the agricultural sector, but in the period 2003-2005, this declined to less than half that, or 7%.<sup>22</sup> Thus, the relative research interest in agriculture in the World Bank roughly declined by about the same proportion as World Bank IDA aid to

agriculture over the 1990s, which decreased from 19.7% of total aid in the mid 1990s to 8.4% in 2000 (see DFID, 2005b).

[insert Figure 4 about here]

Another important source of World Bank research output is the annual *World Development Reports* (WDRs), which review “major development issues”. Figure 5 lists the titles of all WDRs from 1978 to 2006 along with average “agricultur\*” words per page counts which we take as a proxy for the importance of agriculture in these reports. The measure appears to be a good one, as noted by the close association between the title of the report and the word counts.

Looking at the trends in *WDRs*, there are several facts of note. Firstly, the importance of agriculture varies tremendously from report to report – agricultur\* word counts per page range from 1.24 to 0.01, or a ratio of 124 to 1 - indicating the degree to which the reports focus on topics of contemporary appeal. Secondly, many of the topics one would expect to have been more closely connected to agricultural development actually score very low: health (0.04), infrastructure (0.06), investment (0.04), the State (0.09) and even the topic of the most recent 2006 report, *Equity and Development* (0.16). But thirdly and most importantly, we once again observe a strongly declining trend in the importance of agriculture over this period.<sup>23</sup> The heyday of agriculture in development (in theory, but also in terms of aid and direct government finance), the late 1970s and early 1980s, was a period in which agriculture received substantial prominence in the *WDRs*. The period 1978-1986 stands out in particular, with an average word count score of (0.51), which compares favourably indeed with the remainder of the period (1987-2006), with an average word count of just 0.18 (the one exception in this trend being the 2002 *Building Institutions for Markets* report).<sup>24</sup> However, we do note that, at the time of writing, this trend is at least reversing in the immediate future, the upcoming 2008 *WDR* is to be titled *Agriculture and Development*. Of course, whether this resurgence marks a real return of interest in agriculture within The World Bank and other aid agencies – an interest which should be reflected in increased aid flows, greater research and vastly improved data collection – remains to be seen.

[insert Figure 5 about here]

Finally, we turn to the question of whether general academic research has also shifted its interest out of agriculture and into other areas of research. We therefore repeated our abstract search test (using ECONLIT) on book entries and articles which appeared in four prominent development journals over the last quarter century which had “agricultur\*” or “rural” in their abstracts. Specifically we focussed on four leading development journals - *World Development*, *Journal of Development Economics*, *Journal of Development Studies*, and *Economic Development and Cultural Change* - separately for the five five-year periods from 1980 to 2005, and again calculated percentages of agriculture and rural development related items in the totals. Figures A1 and A2 in the appendix document our results. The findings are interesting primarily for how different they are to those of Figure 5, with general academic interest in agriculture and rural development increasing rather than declining.<sup>25</sup>

In summary, there are a range of measures which indicate a trend of increasing neglect towards agriculture. Arguably the most paradoxical source of neglect are foreign aid donors. We therefore devote our concluding section to discussing possible urban biases in some of the most influential schools of development thinking.

## **V. Urban biases in contemporary development paradigms**

### *Urban biases and the neoclassical revolution in development economics*

Whilst biases against agriculture within LDC governments are understandable in light of political economy theory, this cannot fully account for the apparent bias against agriculture amongst foreign aid donors noted above. This should be regarded as especially surprising given that, in the predominant development paradigm of the last twenty years, the neoclassical school - sometimes associated with the phrase ‘Washington Consensus’ (Williamson, 1990) - intervention in favour of industry at the expense of agriculture was deemed especially deleterious to LDC growth prospects (Little et al., 1970; Krueger et al., 1991). In other words, the neoclassical paradigm largely rose out of the ashes of what was predominantly an interventionist industrialization paradigm.

Understanding the neglect of agriculture by the Washington Consensus institutions requires a consideration of the historical evolution of the neoclassical paradigm. In the 1970s and early 1980s, agricultural development was very much on the development research agenda after the surmised failure of import-substitution

industrialization strategies (which typically biased resources away from agriculture) and the early success of the Green Revolution. However, a greater shift in this period towards a more comprehensive intellectual consensus on the importance of agriculture in development was obstructed by several factors, all of which were especially prominent within the neoclassical revolution overtaking development economics. First, criticisms of the urban biases inherent in import-substitution industrialization strategies were intimately tied to the neoclassical, public choice-theoretic criticisms of government interference in general; for example, Anne Krueger's work embodies both (Krueger 1974; 1978; 1983; 1984; Krueger et al. 1991). This meant that although the Washington Consensus called for the reduction of effective taxes on agriculture, it also reduced general government support for agriculture - especially in Africa (Fan and Rao 2004) - and failed to replace ineffective public institutions in the agricultural sector (which were in any case often designed to serve urban-industrial rather than agricultural interests) with anything better (Diao et al. 2006). Research on the effectiveness of agricultural reforms frequently shows that a move towards the free market in the agricultural sector has often failed to improve rural livelihoods for precisely these reasons (Eastwood and Lipton 1997; Kherallah et al. 2002).<sup>26</sup> In other words, the Washington Consensus completely ignored the Theory of Second Best: removing one (government-induced) distortion did not typically improve outcomes because of the presence of other (market-induced) distortions.

Moreover, there is an important institutional story here. If urban biases are indeed deeply embedded in the domestic political economy of LDCs – as Lipton, especially, contends – then any call for LDC governments to cut expenditures will most likely lead to disproportionate cuts for the politically weakest group(s), namely the rural poor. Thus, the neoclassical paradigm conceivably contributed not only to decreasing aid flows to agriculture (in The World Bank, but also in other donors), it may also have inadvertently given freer reign to urban biases in domestic public expenditures (Ahmed and Litpon 1997; Fan and Rao 2004). Indeed, the neglect of institutional factors is a long standing general criticism of the neoclassical approach to development.<sup>27</sup>

#### *Urban biases in a post-Washington Consensus era*

With the increasing criticism of the neoclassical revolution since the late 1990s (references here are too numerous to cite), development economics is arguably proceeding into a post-Washington Consensus era. However, this era seems to be

defined by what it rejects (the original Washington Consensus) more so than by what it consents to. Admittedly there have been attempts to reach some agreement concerning the current state of knowledge - see, for example, the so called Barcelona Consensus and The World Bank's *Economic Growth in the 1990s* (2006) – but these criticisms often seem to boil down to very general statements such as ‘institutions matter’ and ‘countries can pursue alternative development paths’; statements which are difficult to reject and therefore of questionable practical value. One might therefore describe the current post-Washington Consensus era as a highly uncertain one in which two (as yet) loosely defined alternative paradigms are emerging.

The first post-Washington Consensus alternative is what Rodrik (2005) terms the ‘Washington Consensus Mark II’, which refers simply to the old Consensus paradigm augmented with a renewed emphasis on poverty reduction as well as some refinements in the structure and sequencing of the proposed reform framework. Getting macro policies right and aiming for greater competitiveness at the micro level are immediate goals which are still very at the top of the list, but the revisions stress that reformers should be more aware of, and accordingly adjust for, the poverty and distributional impacts of their policy advice. From the perspective of the Washington Consensus itself, it may be argued that these refinements are a healthy part of learning by doing. From the perspective of the history of economic thought, these amendments are sometimes viewed more sceptically as part of a familiar Kuhnian process of adding ‘protective belts’ to ‘normal science’ without changing the core tenets of the paradigm. The implication of this critique is that the mistakes of the past are quite likely to be replicated. In our view one of the major mistakes of the neoclassical revolution was to throw out the baby (substantial government support of agriculture) with the bathwater (trade biases against agriculture and excessive support of non-agricultural activities). And it is indeed difficult to conclude that is much in the ‘Washington Consensus Mark II’ approach which indicates that pro-active government support of agriculture will once again be an integral part of the development agenda.

A more distinct development paradigm in the post-Washington Consensus era is one which argues that government failure is not as bad as the neoclassical critique implies, given the severity of market failure (important readings are Krugman 1992; Stiglitz 1998 and various other works; Rodrik 2005; The World Bank 2006). But for this approach to be truly distinctive it must argue that government intervention is necessary in more than just the now popular education, health and infrastructure sectors: such a

paradigm must identify a strong role for government involvement in traditional production sectors. This paradigm has its roots in both early development models as well as more recent endogenous growth models, and in the so called revisionist analysis of the East Asian miracles which heavily emphasized the importance of strategic government intervention in Asia's industrial sectors especially. The paradigm could also be characterized as more overtly institutional, at least insofar as it emphasizes the notion that economic problems more often than not have their root in socio-political problems, so that pure economic reforms per se will not generally be sufficient to achieve sustained growth. In other words, it is very much conscious of the General Theory of Second Best.

The most vocal proponent of this general paradigm in the current era is Dani Rodrik, and associates.<sup>28</sup> Unsurprisingly given our arguments above, we are less critical of this approach, at least in principle. In practice our critique partly applies to the works of Rodrik and associates, as well as some other writers, insofar as they still underemphasize the importance of the agricultural sector (Stiglitz much less so). This possibly occurs for two reasons. First, as mentioned above, much of the inspiration for this paradigm comes from the overtly historical analyses of the East Asian miracles, which experienced spectacular growth in the production and exportation of manufactured goods, arguably as the result of farsighted industrial policies. Second, much of the analysis of Rodrik and colleagues seems to be applied to relatively advanced Latin American economies, many of which have only moderately sized agricultural sectors (not unlike many present day East Asian countries which they are invariable compared to).

Of these implicit justifications for the paradigm we make two somewhat critical observations.

First, by far the most pressing developmental concerns lie in predominantly rural sub-Saharan Africa, and in the poorer rural regions of South and South East Asia. Even many of the poorest countries in Latin America still have relatively large agricultural sectors. In other words, a paradigm which tends to place undue weight on the lesser of two problems – the non-agricultural sector – again threatens to repeat the mistakes of the past: a biasing of policy initiatives towards industry at the effective expense of agriculture, resulting in highly unbalanced and unsustainable growth patterns. As noted above, it was precisely these problems which heavily motivated the neoclassical critique of sectoral interventions in the first place.

Second, analyses of the East Asian countries not only reveal the obvious fact that an increasing proportion of manufactured goods in OECD countries are ‘Made in China’ or some other Asian economy. Underneath the more ostentatious success story in East Asia’s manufacturing sectors lies the equally remarkable but less overt success story of Asia’s agricultural sectors (as well as in many of the less overt success stories discussed in Rodrik (2005), such as Mauritius, the Dominican Republic, and Syria). If our assertion that sustainable overall development very much requires agricultural success to precede or at least accompany industrial takeoff, then surely the imperative task for most developing countries is to achieve agricultural gains. Unfortunately this seemingly obvious necessity is not sufficiently enunciated in most of the literature currently identified with this paradigm; in our view, to its detriment. In the current era, an improved consensus on development urgently requires a greater role for pro-agricultural policies, and the incorporation of specific institutional impediments to growth. Foremost amongst these is the urban bias.

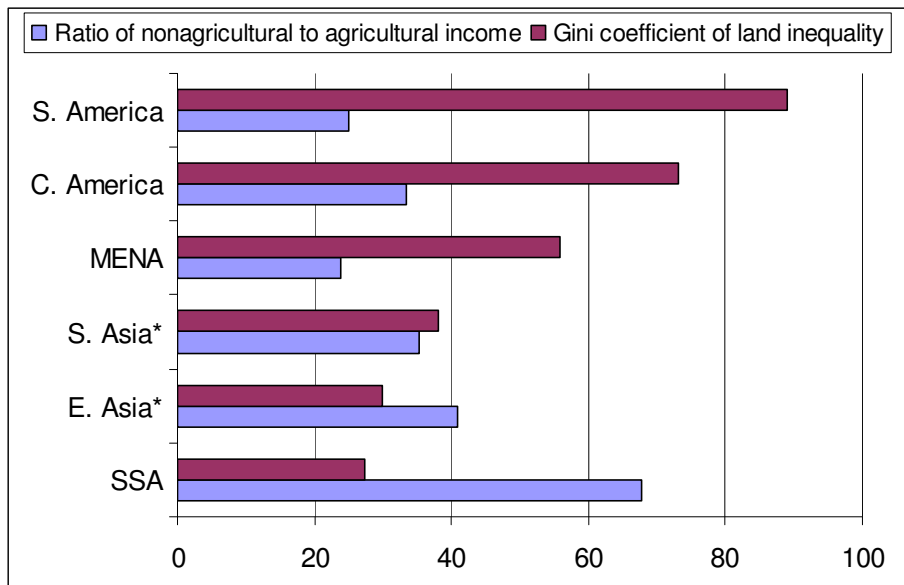
## Tables and Figures

Table 1. The persistence of domestic and international urban biases: causes and manifestations

	Domestic urban biases		International urban biases	
<b>Causes</b>	<u>Private Sector</u> <ul style="list-style-type: none"> <li>Colonial inheritance of dualistic economy.</li> <li>Externalities to agriculture not internalized.</li> <li>Severe market failures in agriculture.</li> </ul>	<u>Public Sector</u> <ul style="list-style-type: none"> <li>Relatively weak political voice of rural poor relative to rural rich and urban populations.</li> </ul>	<u>Trade</u> <ul style="list-style-type: none"> <li>Relatively strong political voice of rural OECD constituencies (OECD's rural bias).</li> </ul>	<u>Aid</u> <ul style="list-style-type: none"> <li>Washington Consensus scepticism of government intervention.</li> <li>Perception that rural projects and Green Revolution have largely failed.</li> </ul>
<b>Manifestations</b>	<ul style="list-style-type: none"> <li>Disproportionate private investment in industry.</li> <li>High land inequality in Latin America; high general rural-urban inequality in Africa and other poor-performing LDCs.</li> </ul>	<ul style="list-style-type: none"> <li>High direct and indirect taxation of agriculture (Krueger et al. 1991).</li> <li>African economies typically spend less than US\$ 10 per rural inhabitant.</li> </ul>	<ul style="list-style-type: none"> <li>Large levels of trade protection against LDC agricultural exports.</li> <li>High and rapidly increasing levels of subsidization of OECD agriculture.</li> </ul>	<ul style="list-style-type: none"> <li>Heavily declining aid flows to agriculture sector.</li> <li>Declining World Bank research on agriculture relative to other fields.</li> </ul>



Figure 1. Comparing inequality in sectoral incomes and land ownership across regions.

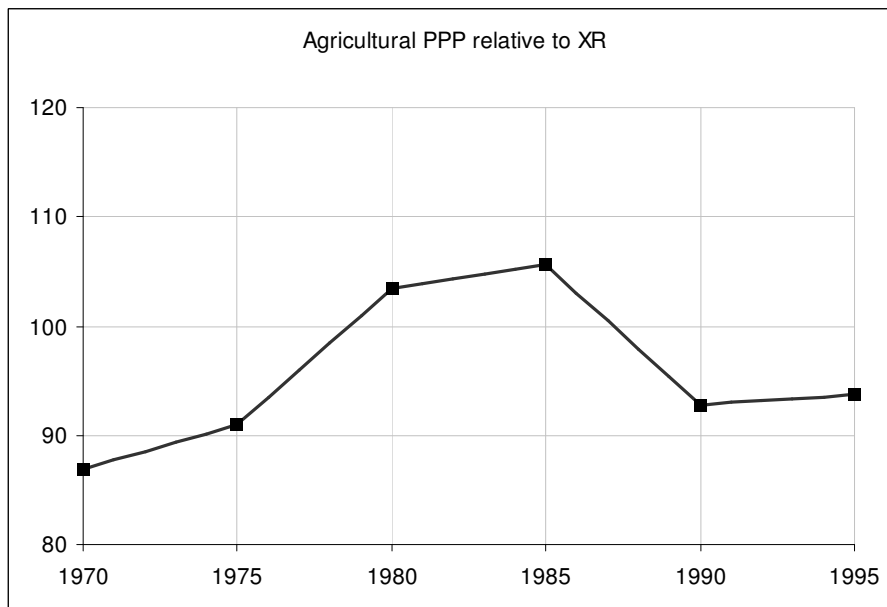


Sources: Land inequality data is from Frankema (2005); Sectoral income inequality data is from Headey (2006).

Notes: Both inequality measures are rescaled so as to lie between 0 and 100. Sectoral income inequality is measured circa 2001, and land inequality is measured circa 1985 but is assumed to have change very little since. Note that Central America includes several Caribbean countries.

\*South Asia excludes Nepal, in which intersectoral inequality was extremely high (at sub-Saharan African levels), while East Asia excludes Thailand for similar reasons.

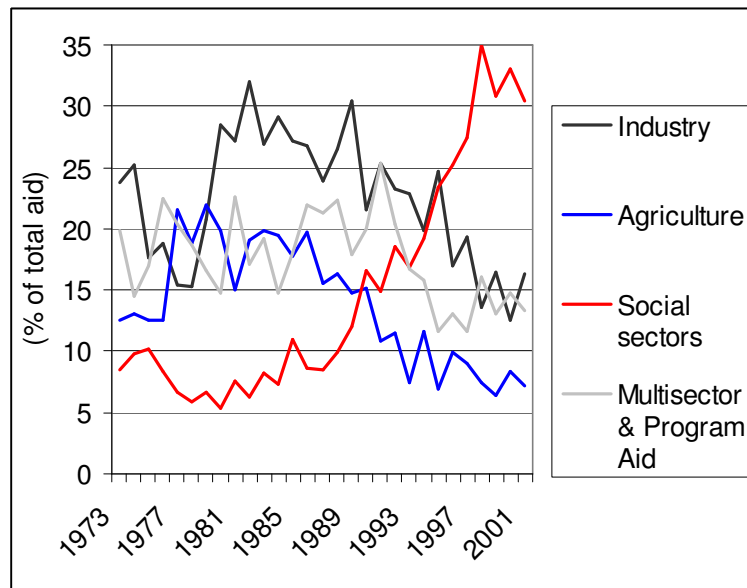
Figure 2. Trends in relative agricultural prices in LDCs, 1970-1995.



Source: Authors calculations from Rao (1993). The 1995 update is from an unpublished manuscript from Professor D.S. Prasada Rao.

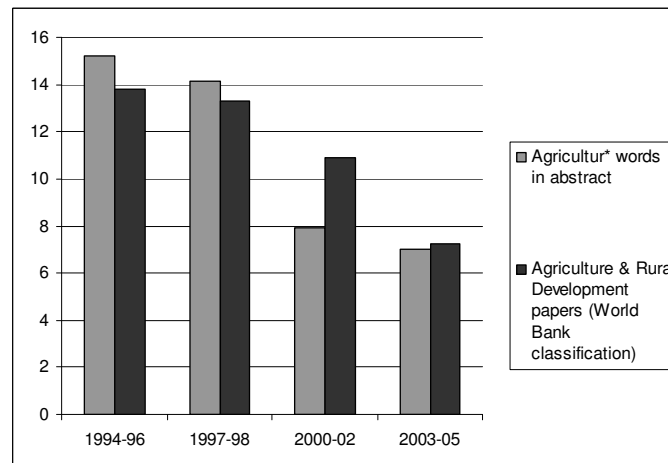
Note: A ratio of 100 would, under certain rather strict assumptions, indicate that price distortions against agriculture were non-existent.

Figure 3. The changing composition of foreign aid: all countries, 1973-2001.



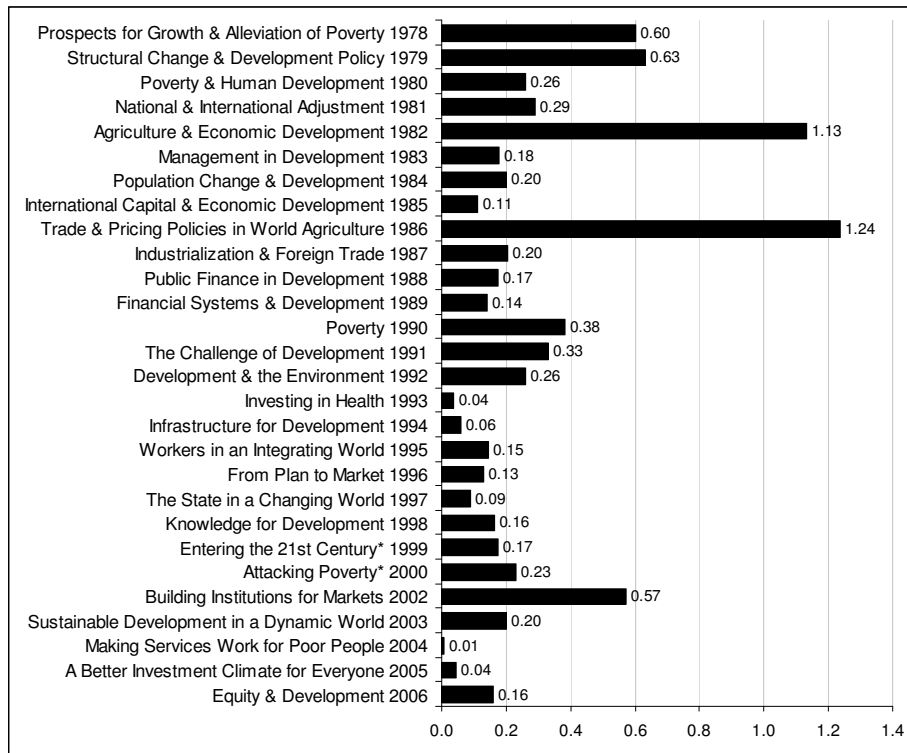
Sources: Aid data is from the OECD DAC data base. Industry refers to all nonagricultural sectors except transport and communications, since these could effectively be agricultural expenditures. Social sectors refers to expenditures on education, health, population, women, the environment, governance and NGOs.

Figure 4. The Percentage of World Bank Working Papers Discussing Agriculture



Source: Authors' calculations using The World Bank e-Library.

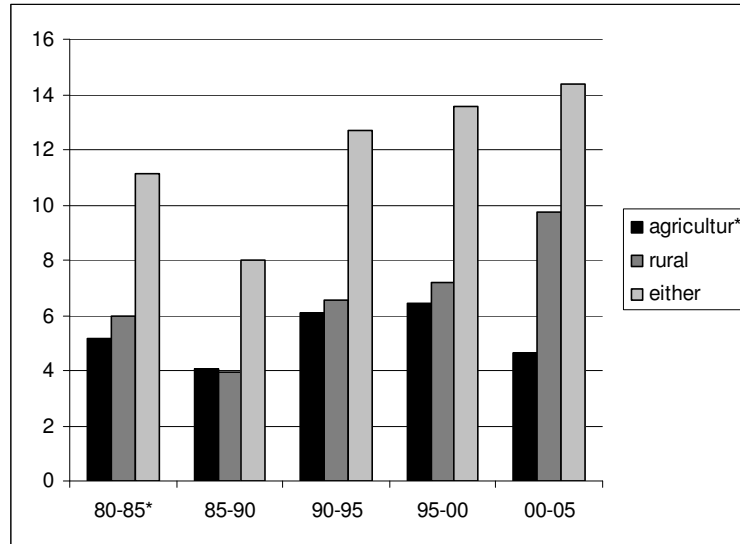
Figure 5. World Development Reports and the Frequency of Agricultur\* Words/Page



Sources: World Development Reports, various issues, and authors'; calculations.  
 These reports actually cover 1999/2000 and 2000/2001 respectively.

## Appendix

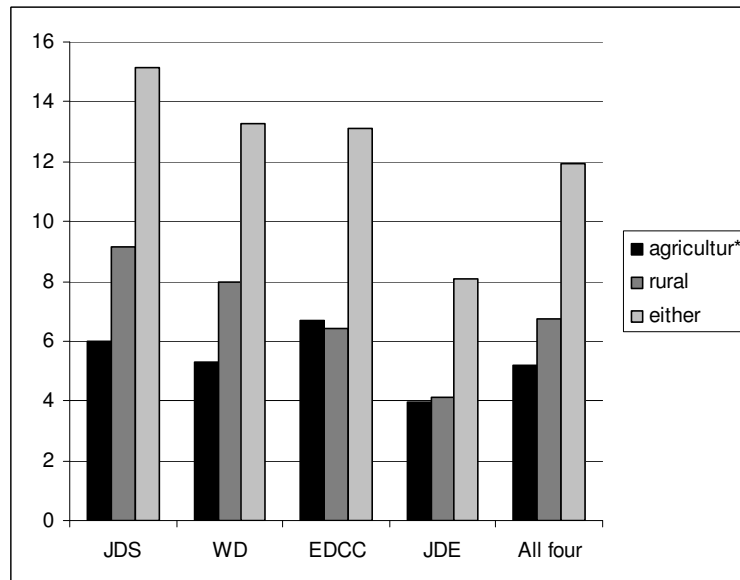
Figure A1. Percentages of all book entries and articles on agriculture and rural development for four development journals: 1980-2005.



Notes: \*The 1980-85 data are for keywords in the title since the search in abstracts does not work for this period.

Source: ECONLIT

Figure A2. Percentages of all book entries and articles on agriculture and rural development for four development journals: 1980-2005.



Source: ECONLIT and authors' calculations.

Notes: JDS is *The Journal of Development Studies*; WD is *World Development*; EDCC is *Economic Development and Cultural Change*; JDE is *The Journal of Development Economics*.

Table A2. Explaining an urban bias proxy in 54 developing countries

Variable	Coefficient
Agricultural labour productivity, 1970	-2.41**
Population density	-5.17**
Democracy (1-10)	-1.72***
Land inequality	-3.22***
Land inequality, squared	0.03***
R-squared	0.45
Adjusted R-squared	0.40

Notes: The regression technique used was standard OLS. The dependent variable is an urban bias proxy, which is the proportion of the urban population with access to safe water less the equivalent rural proportion, as measured circa 2002. The source of both variables is the WDI (2005). Agricultural labor productivity data is from Alauddin, Rao and Headey (2005). Land inequality Gini coefficients are from Frankema (2005), and is measured circa 1985. Democracy data is from the POLITYIV (2004) database. Effective population density is from the Harvard CID website. The quadratic specification on land inequality indicates a turning point greater than 100 (the maximum value of a Gini coefficient), but graphical data indicate that land inequality is associated with greater urban biases beyond a level of about 70, wherein many Latin American countries lie.

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## **Endnotes**

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<sup>1</sup> We use the term ‘urban bias’ somewhat loosely. Unlike Lipton, we place rather more emphasis on discrimination against the agricultural sector more so than the entire rural sector, although the heavy dependency of the non-farm sector on the agricultural sector renders these distinctions fairly superfluous. See Lipton (1988, pp. 60-61) for some discussion. We therefore somewhat haphazardly switch between discussion the rural sector and the agricultural sector.

<sup>2</sup> While this claim has recently been disputed by Clark (1999), he also presents evidence that the Western countries – especially the industrial leader, Great Britain, had achieved comparatively high levels of agricultural productivity before the onset of the Industrial Revolution. Maddison (2001) provides similar evidence that the Western countries were already considerably wealthier than the rest of the world in 1800.

<sup>3</sup> Adelman and Morris (1988) report that (p. 133-146): “Great Britain, France, Germany, the United States, Canada, Japan, and Sweden . . . For these countries, a substantial period of rising labour productivity in agriculture preceded the first sustained surge of modern industrial expansion. Then, as industrialization progressed, the agricultural sector played an important role in providing labour, raw materials, and/or capital to the industrial sector in providing a market for both industrial and agricultural products . . . . Belgium, Denmark, the Netherlands, and Switzerland . . . whose agricultural sectors were radically transformed during the last quarter of the 19<sup>th</sup> century from extensive cultivation to the production of human capital-intensive crops for export. Export markets became even more important to agriculture than domestic markets.”

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<sup>4</sup>The monetization of the agricultural sector, especially, serves an institutional purpose as well as an economic one.

<sup>5</sup> Successful land reforms can be good for overall growth in several ways. First, smaller farms may increase labour productivity by lowering the costs of monitoring hired labour. Second, land can be used as collateral to obtain loans. Third, land reform may preclude civil unrest associated with excessive urbanization and general income disparities.

<sup>6</sup> The one finding we found which seemed to contradict this was the Bravo-Ortega and Lederman (2005) working paper, but their conclusion that agriculture had no significant effects on long run growth turned out to be driven by the inclusion of already developed economies, which is irrelevant to the hypothesis in question.

<sup>7</sup> Unfortunately, data on the extent of private investment in non-agriculture versus agriculture is not widely available.

<sup>8</sup> It is interesting to consider the relevance of this finding to the arguments of Acemoglu et al. (2001). Greater land inequality in Latin America, for example, is almost certainly a result of the greater penetration of the colonial economy into agriculture on this continent.

<sup>9</sup> Countries with traditionally lower agricultural productivity will attract fewer public resources if policymakers view the sector as having no absolute or comparative advantage, or if the sectors low productivity means that it contributes very little tax revenue or rent-seeking opportunities. The effect of land inequality on urban biases is explained earlier in the text.

<sup>10</sup> Land reform and credit market interventions in East Asia, for example, meant that their agricultural strategies were relatively labour intensive, pro-poor, and more conducive to political stability.

<sup>11</sup> Readers may refer to the International Association for Agricultural Economists (IAAE) 2006 Conference website for preliminary results of this research program: <http://www.iaae-agecon.org/>

In the Krueger et al. study the various authors in that study were asked to first compare actual agricultural prices to benchmark international prices for both producer prices and input prices and thereby gauge the extent to which producer prices fell short of or exceeded the world price ('Direct intervention'). They also estimated what each country's exchange rate would have been under a free trade regime with a sustainable current account deficit. The extent of 'indirect intervention' was then gauged by estimating the hypothetical decline in prices of goods purchased by agricultural producers if there had been no trade interventions. The effects of these two interventions are then added to give the total extent of taxation or subsidization of agriculture in each country.

<sup>12</sup> The forthcoming update of the Krueger et al. type study also seems to corroborate this conclusion.

<sup>13</sup> See the references below. See also forthcoming work by Headey, Rao and Alauddin (2007), in which the authors test the effects of agricultural expenditure and prices on agricultural labor productivity growth and agricultural TFP growth, respectively.

<sup>14</sup> Several caveats to this measure should be noted. First, by including only sector-specific expenditures, this measure does not take account of the distribution of benefits from general expenditures, such as on infrastructure. Second, in strongly federalist states (such as China and India) these central government expenditures may constitute only a small part of total domestic public resources.

<sup>15</sup> See [http://www.gatt.org/trastat\\_e.html](http://www.gatt.org/trastat_e.html) for an overview.

<sup>16</sup> In Japan and the EU tariffs on fully processed food are twice as high as those placed on first-stage processed food; in Canada they are 12 times as high.

<sup>17</sup> The historical context of rural development projects should not be underemphasized nor viewed as apologist. The heyday of rural projects was the late 1960s, 1970s and early 1980s. Unfortunately, this meant that major rural development strategies were operationalized in a period of severe oil price shocks and a global slowdown in growth rates, especially among OECD countries which constitute the final market for many LDC agricultural goods. In addition, the 1970s was a period of severe political instability in both Latin America and Sub-Saharan Africa (democratization has increased markedly in both continents since, especially Latin

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America). Thus the broader economic and political background against which the rural development drive took place was exceptionally poor.

<sup>18</sup> In many cases, the proportion of agricultural aid in total aid virtually halved in just five years from 1993 to 1998.

<sup>19</sup> Data are available on request.

<sup>20</sup> Another caveat is that forestry and fishing were included in earlier data, but identified as separate sectors from 1996 onwards. These two sectors would constitute as much as 20% of total agricultural aid, but in most countries the proportion would be significantly less. Also, the current definition excludes: some 'rural development' which may be classified as multi-sector aid; food aid; and, sometimes, assistance provided through NGOs since this is not always 'sector coded' in as much detail as project and programme aid. But in any case, the decline in agricultural aid preceded the 1996 change in definition.

<sup>21</sup> Data prior to 1994 are available, but the total number of publications is well under 100 for all these years and could therefore be misleading for a number of reasons. The period 1994–2005 excludes data for 1999, in which about 7 times the normal number of working papers were published, for reasons not yet established. Inclusion of 1999 data did not radically change the trend in the data, but did mean that 1999 data were constituted a large outlier for the "agriculture and rural development" category, since this proportion was only 7.0%, a much lower value than 1998 (14.7%) or 2000 (15.4%). It was therefore excluded on this basis.

<sup>22</sup> Although we note that in absolute terms the number of papers on the agricultural sector in 2005 was quite high relative to previous years. However, the total numbers of working papers had obviously risen proportionately.

<sup>23</sup> To what extent these disturbing trends apply to other donors is difficult to judge, but Mosley (2001) points out that the 2000 DFID White Paper discusses smallholder agriculture, "on which 900 million poor people globally depend", in a "mixed two-page section on natural resources as a whole . . . which is much less space than is allocated to the internet, on which no poor people depend at all."

<sup>24</sup> The *Building Institutions for Markets* report was directed by Nicholas Stern, an erstwhile critic of the neglect of agriculture and dualism (see Stern, 1991, 1996).

<sup>25</sup> Perhaps one caveat to the conclusion that The World Bank has been especially neglectful of agriculture, however, is that the emphasis on agricultural development in academic journals is now no larger than it was in World Bank working papers in the mid-1990s (around 14%). In other words, general researchers have essentially been catching up to World Bank researchers, if one assumes that the two measures can be compared in absolute terms.

<sup>26</sup> In fact, it is also possible that domestic agricultural expenditure may have decreased even more than other forms of expenditure as the result of reform. However, to our knowledge, such a claim has not yet been tested.

<sup>27</sup> Whilst it is incontrovertible that the Washington Consensus often directly called for reductions in government intervention in agriculture, this is not necessarily evidence that domestic urban biases were given freer reign, a hypothesis which we freely admit is difficult to prove or disprove.

<sup>28</sup> See Rodrik 2000, 2005; Rodriguez and Rodrik 2001; Birdsall, Rodrik and Subramanian 2005; Rodrik, Subramanian and Trebbi 2005; Hausmann, Rodrik and Velasco 2006.